

WHAT IS CLAIMED IS:

1. A dual-opening mechanism of a door comprising:
first and second pairs of hinges comprising:
first and second pairs of stationary hinge parts
5 each having a hinge knuckle, and each pair attached
on the opposite sides of an opening of a casing,
first and second pairs of moving hinge parts
releasable from said first and second pairs of
stationary hinge parts, each having hinge knuckles,
10 and each pair attached in the opposite sides of a door
for opening and closing said opening of the casing,
and

15 first and second pairs of hinge pins, one pair
removably inserted into the hinge knuckles of one of
said first and second pairs of stationary hinge parts
and into the hinge knuckles of one of said first and
second pairs of moving hinge parts, and the other pair
into the hinge knuckles of the other of said first and
second pairs of stationary hinge parts and into the
hinge knuckles of the other of said first and second
20 pairs of moving hinge parts, to couple said stationary
hinge parts to said moving hinge parts;

25 first and second hinge pin drive mechanisms, each moving
one of said first and second pairs of hinge pins together
in inward and outward linear motion to drive the hinge pins
into or out of the hinge knuckles of the stationary and
moving hinge parts; and

first and second handles each operatively linked to one of said first and second hinge pin drive mechanisms for operating the first or second pair of hinge pins;

wherein the door is opened/closed by selectively 5 operating either one of said first and second handles to draw either one of said first and second pairs of hinge pins out of the corresponding one of said first and second pairs of hinges, and pivoting the door around the other pair of hinge pins coupled to the corresponding other of 10 the first and second pairs of hinges.

2. The dual-opening mechanism of a door according to claim 1, wherein the hinge knuckle of each stationary hinge part is adapted to be fitted between the hinge knuckles of each 15 moving hinge part, and at least one of the hinge knuckles of the stationary and moving hinge parts is provided with beveled guide portions at its connecting ends for guiding the hinge knuckle of the stationary hinge part into or out of the position between the hinge knuckles of the moving 20 hinge part.

3. The dual-opening mechanism of a door according to claim 1 or 2, wherein a quench hardened collar member is press fitted on the inner periphery of each hinge knuckle of the 25 stationary and moving hinge parts, and each hinge pin has a tapered tip and has been quench hardened.

4. The dual-opening mechanism of a door according to any one of claims 1 to 3, further comprising a door position adjusting device comprising:

5 a follower part formed on the door, said follower part projecting toward the casing, and having an end curved outward;

a guide part formed on the casing, said guide part projecting toward the door, and having an end curved inward;

10 wherein, in closing the door, said follower part is brought into contact with the end of the guide part, and slidingly guided onto the outer surface of the guide part to lead the door into a right position on the face of the casing having the opening.